

REMARKS

I. Introduction

With the cancellation herein without prejudice of claims 1 to 3, claims 4 and 5 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that claims 4 and 5 are allowable, and reconsideration is respectfully requested.

Applicants again respectfully request that the Examiner acknowledge the claim to priority and acknowledge receipt of the certified copy of the priority document in the next Office communication.

II. Rejection of Claims 4 and 5 Under 35 U.S.C. § 102(e)

Claims 4 and 5 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,320,154 (“Akahori et al.”). It is respectfully submitted that Akahori et al. do not anticipate the present claims for at least the following reasons.

To reject a claim as anticipated under 35 U.S.C. § 102, the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (*See Scripps Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). As explained herein, it is respectfully submitted that the Final Office Action does not meet this standard, for example, as to all of the features of the claims.

Claim 4 relates to a method for anisotropic plasma etching of a substrate, the method comprising: generating, with a plasma source that is configured to generate a high-frequency electromagnetic alternating field, a plasma having reactive species inside a chamber in a reaction region by the action of the alternating field upon an etching gas inserted into the reaction region and a passivating gas inserted into the reaction region; in the reaction region, inserting the etching gas predominantly into a first zone and inserting the passivating gas predominantly into a second zone; generating a reactive etching gas species in the first zone by using a plasma that is generated there, and generating reactive passivating gas species in the second zone by using a plasma that is generated there; and mixing the etching gas species and the passivating gas species with each other in a mixing region downstream from the reaction region before their action upon the substrate, wherein a quantity of the passivating gas that is used is minimized compared to a quantity of the etching gas.

While the anticipation rejection of claim 4 is not necessarily agreed with, to facilitate matters, claim 4 has been amended herein without prejudice to recite that etching species and passivating species are generated at least largely independently of one another.

Consequently, the etching method according to claim 4 as amended requires that the etching gas and the passivating gas be introduced in a reaction region having a first and a second zone, whereby reactive etching gas species and passivating gas species are generated in the respective zones, using a plasma generated there; and that the etching gas species and the passivating gas species be generated largely independently of one another. Support may be found, for example, on page 9, lines 1 to 7 of the specification. In addition, this latter feature is illustrated in Figure 7, in which six tubes 32, 33 are situated next to one another in the reaction region to form six individual, spatially separated chambers. Etching gas is introduced into three of them, and passivating gas is introduced into three of them.

According to the Final Office Action, plasma chamber 21 of Akahori et al. may be regarded as a first reaction-region zone and film-formation chamber 22, or the upper portion of film-formation chamber 22, of Akahori et al. may be regarded as the second reaction-region zone. However, in Akahori et al., the generating of the passivating gas species in film-formation chamber 22 does not take place independently of the etching gas species. On the contrary, the upper portion of film-formation chamber 22, i.e., the region in which the passivating gas is introduced, is situated beneath plasma chamber 21 without any separation, which means that the generation of the passivating gas species is necessarily carried out in the presence of, or under the influence of, etching gas species that are accelerated in the direction of the substrate and, in the process, are mixed with the passivating gas. Therefore, it is respectfully submitted that Akahori et al. do not anticipate claim 4 for at least the foregoing reasons.

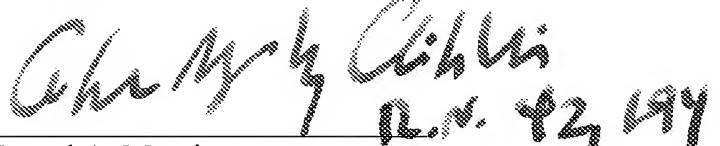
While the anticipation rejection of claim 5 is not necessarily agreed with, to facilitate matters, claim 5 has been amended to recite features essentially analogous to claim 4 with respect to etching species and passivating species being generated at least largely independently of one another. Therefore, it is respectfully submitted that Akahori et al. do not anticipate claim 5 for at least the same reasons more fully set forth above in support of the patentability of claim 4.

In view of all the foregoing, withdrawal of this rejection is respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that all of the presently pending claims are allowable. It is therefore respectfully requested that the rejection be withdrawn, since it has been obviated. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is respectfully requested.

Respectfully submitted,

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